ELSEVIER

Information and Software Technology 44 (2002) 943–944

INFORMATION AND SOFTWARE TECHNOLOGY

www.elsevier.com/locate/infsof

INFORMATION AND SOFTWARE TECHNOLOGY

Author index – Volume 43/15 & Volume 44

Ahn, G.-J. 649
Al-Dallal, J. 973
Alagić, S. 207
Almendros-Jiménez, J. M. 65, 393
Anderson, P. 743
Andritsos, F. 25
Antoniol, G. 755

Bahsoon, R. 431
Bao, T. 91
Bartolini, S. 783
Becker-Kornstaedt, U. 601
Bemelmans, T. M. A. 959
Benameur, H. 291
Bergstra, J. 617
Beynon-Davies, P. 579
Bhowmick, S. S. 513
Binkley, D. 743
Boujarwah, A. A. 973
Buttler, D. 237

Cai, K. Y. 841
Calero, C. 949
Carvalho, L. 601
Castano, S. 241
Cha, H. 551
Chaib-draa, B. 291
Chang, D.-H. 405
Chaudhri, A. B. 195
Chen, T. Y. 839
Chen, Z. 733
Cheung, S.-C. 875
Chiasson, T. 279
Collins, S. R. 251
Connor, R. C. H. 217
Cordy, J. R. 827
Crainic, T.-G. 313
Critchlow, T. 237

D'Ambra, J. 601
d'Astous, P. 639
d'Inverno, M. 101
Dai, Y. S. 343
Darter, M. E. 53
Dean, T. R. 827
Di Penta, M. 755
Drábek, E. 91
Drew Procaccino, J. 53
Dssouli, R. 277, 313

Feijs, L. M. G. 671
Follen, G. 175
Fong, J. 41
Forsyth, H. 381

García-Mateos, G. 161
García-Molina, J. 161
Genero, M. 949
Gielen, G. 91
Glass, R. L. 491
Gómez, J. Á. 923
González-Jiménez, L. 65, 393
Gregor, D. 797
Gruhn, V. 891

Han, W.-S. 419
Hanna, J. R. P. 1
Harman, M. 717
Hawkey, K. 279
He, X. 473
Heemstra, F. J. 959
Heiat, A. 911
Hélou, C. 313
Heuser, C. A. 241
Hewahi, N. M. 451
Holgate, M. 259
Holmes, S. 579
Hong, S.-P. 649
Höst, M. 921
Howells, P. 101
Hsu, K.-H. 361
Hu, L. 717
Hu, M. 101
Hull, M. E. C. 1
Inoue, K. 459, 903
Insfrán, E. 659

Jeffery, R. 601
Jiang, M. 91
Jørgensen, M. 939

Kempa, M. 229
Kikuno, T. 113, 123
Kim, C. 175
Kim, M. H. 405
Kitchenham, B. A. 13
Kobayashi, N. 113, 123
Koskimies, K. 565
Kropf, P. 291
Kudrass, T. 269
Küchlin, W. 857
Kumarakulasingam, P. 395

Lai, C. D. 343
Lee, J. 361
Lee, M.-J. 419
Lee, W. 551
Lee, Y.-K. 419
Leung, H. K. N. 703
Leung, K. R. P. H. 703
Lievens, D. 217
Lim, E.-P. 513
Linnemann, V. 229
Liu, S. M. 797
Lopez, I. 175
Lopriore, L. 541
Luck, M. 101
Lumpp, T. 857

Madria, S. 513
Maier, D. 197
Mäkinen, E. 565
Mall, R. 123
Malton, A. J. 827
Manduchi, G. 593
Manghi, P. 217

PII: S0950-5849(02)00181-7

Mansour, N. 431
Mark, L. 251
Marquis, G. P. 507
McAllister, M. 279
McArthur, K. 351
McWilliam, J. 381
Meijs, F. A. 671
Mello, R. d. S. 241
Merlo, E. 755
Millar, R. J. 1
Mínguez, R. 649
Moonen, J. R. 671
Morisawa, Y. 459
Mund, G. B. 123
Munro, M. 717
Musser, D. 797

Navathe, S. 251
Neely, S. 217
Ng, W. K. 513
Nørvåg, K. 331

Ohata, F. 903
Ortín-Ibáñez, M.-J. 161
Overmyer, S. P. 53

Palshikar, G. K. 137
Papadimos, V. 197
Park, B.-K. 419
Partain, W. 259
Pastor, O. 659
Pelechano, V. 659
Petersson, Håkan 683
Piattini, M. 923, 949
Pijpers, G. G. M. 959
Poh, K. L. 343
Pollock, L. L. 721
Polo, M. 923
Prete, C. A. 783

Ramesh, V. 491
Regnell, B. 925
Ricca, F. 811
Rine, D. C. 77
Robillard, P. N. 639
Rolland, C. 185
Rosay, G. 743
Ruiz, F. 923
Runeson, P. 683, 925

Saiedian, H. 351, 395
Saleh, K. 303, 973
Sang, J. 175
Sarkar, S. 123
Schneider, J. 857
Schneider, K. A. 827
Schöpe, L. 891
Schorling, S. M. 77
Schupp, S. 797
Scott, L. 601
Seki, H. 903
Shin, M. E. 649
Simeoni, F. 217
Sinz, C. 857
Sjøberg, D. I. K. 939
Slonim, J. 279
Son, J. H. 405
Song, J.-W. 419
Souter, A. L. 721
Srivastava, J. 551
Standing, C. 151
Systä, T. 565

Takata, Y. 903
Taliercio, C. 593
Tan, G. 91
Taylor, M. J. 381
Taylor, P. S. 1
Teitelbaum, T. 743
Thelin, T. 683, 925
Tonella, P. 811
Torii, K. 459
Tse, T. H. 839
Tsuchiya, T. 113, 123

Vakalis, I. 25
Van De Vanter, M. L. 767
van Montfort, K. A. G. M. 959
van Wamel, J. J. 671
Verner, J. M. 53
Vessey, I. 491
Villano, U. 755

Wade, S. 381
Wang, X. 875
Wei, J. 875
Whang, K.-Y. 419
Wohlin, C. 921

Xia, Y. 91
Xie, M. 343
Xu, B. 733

Yang, H. 733
Yang, P. 343
Yokomori, R. 903
Yu, Y. T. 839

Zand, M. 351
Zhang, X. 717
Zhao, J. 733
Zhu, H. 473
Zhu, X. 91
Zhuge, H. 445

ELSEVIER

Information and Software Technology 44 (2002) 945–951

INFORMATION AND SOFTWARE TECHNOLOGY

www.elsevier.com/locate/infsof

Keyword Index – Volume 43/15 & Volume 44

Access control
Reconstructing a formal security model 649
Access right
Access privilege management in protection systems 541
Active libraries
Semantic and behavioral library transformations 797
Adaptive software testing
Optimal software testing and adaptive software testing in the context of software cybernetics 841
Admission control
QoS-adaptive bandwidth scheduling in continuous media streaming 551
Andersen algorithm
Flow insensitive points-to sets 743
Architectural style
Architectural styles for distributed processing systems and practical selection method 459
Artificial neural network
Comparison of artificial neural network and regression models for estimating software development effort 911
Automatic code generation
Conceptual Modeling in the eXtreme 659

Behavioral modeling
Automated compression of state machines using UML statechart diagram notation 565
Behaviour observation
A methodology of testing high-level Petri nets 473
Bioinformatics
Using meta-data to automatically wrap bioinformatics sources 237
Black-box testing
Non-specification-based approaches to logic testing for software 113
Braille translation
Braille to print translations for Chinese 91

Buffer management
Signature caching in parallel object database systems 331

C++ metaprogramming
Semantic and behavioral library transformations 797
Cache utilization
A cache-aware program transformation technique suitable for embedded systems 783
Call chains
Characterization and automatic identification of type infeasible call chains 721
Capture–recapture models
Confidence intervals for capture–recapture estimations in software inspections 683
Catalysis
Software development processes – an assessment 1
Clone detection
Analyzing cloning evolution in the Linux kernel 755
Clustered system
A model for availability analysis of distributed software/hardware systems 343
Clustering indexes
The clustering property of corner transformation for spatial database applications 419
Code generation
Generating three-tier applications from relational databases: a formal and practical approach 923
Code wrapping
Development of CORBA-based engineering applications from legacy Fortran programs 175
Cognitive activity
Empirical study of exchange patterns during software peer review meetings 639
Cohesion
Application of traditional system design techniques to web site design 507

Combined software/hardware
A model for availability analysis of distributed software/hardware systems 343
Comments
The documentary structure of source code 767
Commercial-off-the-shelf
On the efficiency of domain-based COTS product selection method 703
Component-based software development
An evaluation of the impact of component-based architectures on software reusability 351
Concept-based transformations
Semantic and behavioral library transformations 797
Conceptual modeling
Conceptual Modeling in the eXtreme 659
Concurrency
Anomaly detection in concurrent Java programs using dynamic data flow analysis 973
Concurrent program flow graph
Concurrent Ada dead statements detection 733
Concurrent systems
A methodology of testing high-level Petri nets 473
Confidence interval
Confidence intervals for capture–recapture estimations in software inspections 683
Configuration
ARK: an object(ive) view of extensible minimal languages for system configuration 259
Conflict misses
A cache-aware program transformation technique suitable for embedded systems 783
Continuous media streaming
QoS-adaptive bandwidth scheduling in continuous media streaming 551
Control flow graph
An efficient dynamic program slicing technique 123

PII: S0950-5849(02)00182-9

Controlled experiment
Usage-based reading–an experiment to guide reviewers with use cases 925
Controlled Markov chain
Optimal software testing and adaptive software testing in the context of software cybernetics 841
CORBA (Common Object Request Broker Architecture)
Development of CORBA-based engineering applications from legacy Fortran programs 175
An evaluation of the impact of component-based architectures on software reusability 351
Corner transformation
The clustering property of corner transformation for spatial database applications 419
Coupling graph
Anatomy of the coupling query in a web warehouse 513
Coupling query
Anatomy of the coupling query in a web warehouse 513
Coupling text
Anatomy of the coupling query in a web warehouse 513
Critical path
Critical path identification in the context of a workflow 405
CSP
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875
Customer/users involvement
Case study: factors for early prediction of software development success 53

DARPA Agent Markup Language-S
Using meta-data to automatically wrap bioinformatics sources 237
Data envelopment analysis
The question of scale economies in software–why cannot researchers agree? 13
Data extraction
Using meta-data to automatically wrap bioinformatics sources 237
Data models
Institutions: integrating objects, XML and databases 207
Database
Empirical validation of referential integrity metrics 949
Database reengineering
Generating three-tier applications from relational databases: a formal and practical approach 923
Dead statements
Concurrent Ada dead statements detection 733
Design breakdowns
Design breakdowns, scenarios and rapid application development 579
Diagnosis
Temporal fault trees 137
Distributed architecture
An architecture in support of universal access to electronic commerce 279
Distributed computing model
Architectural styles for distributed processing systems and practical selection method 459
Distributed object
Development of CORBA-based engineering applications from legacy Fortran programs 175
Distributed processing system
Architectural styles for distributed processing systems and practical selection method 459
Distributed query processing
Mutant query plans 197
Distributed system
A model for availability analysis of distributed software/hardware systems 343
Document exchange process
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875
Document object model
V-DOM and P-XML–towards a valid programming of XML-based applications 229
Document type definitions
A method for the unification of XML schemata 241
Domain-based method
On the efficiency of domain-based COTS product selection method 703
Dynamic data flow analysis
Anomaly detection in concurrent Java programs using dynamic data flow analysis 973
Dynamic slicing
An efficient dynamic program slicing technique 123

E-commerce protocols
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875
E-commerce
Methodologies for developing Web applications 151
Effort estimation
Impact of effort estimates on software project work 939
Electronic commerce system
Software processes for the development of electronic commerce systems 891
Electronic commerce
An architecture in support of universal access to electronic commerce 279
Documenting electronic commerce systems and software using the unified modeling language 303
Electronic process guide
Understanding the use of an electronic process guide 601
Embedded systems
A cache-aware program transformation technique suitable for embedded systems 783
Empirical software engineering
Understanding the use of an electronic process guide 601
Empirical study
Empirical study of exchange patterns during software peer review meetings 639
Confidence intervals for capture–recapture estimations in software inspections 683
Empirical validation
Empirical validation of referential integrity metrics 949
Entity relationship model
Bases for the development of LAST: a formal method for business software requirements specification 65
Estimation accuracy
Impact of effort estimates on software project work 939
Expert systems
A general rule structure 451
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Extensible compilers
Semantic and behavioral library transformations 797
eXtensible markup language schema
XML schema mappings for heterogeneous database access 251
Extensible markup language
V-DOM and P-XML–towards a valid programming of XML-based applications 229
A method for the unification of XML schemata 241

Factor covering design
Non-specification-based approaches to logic testing for software 113
Fahndrich algorithm
Flow insensitive points-to sets 743
Fan-out
Application of traditional system design techniques to web site design 507
Fault tree
Temporal fault trees 137
Field
Molecule-oriented programming in Java 617
Finite field
Non-specification-based approaches to logic testing for software 113
Focus
Molecule-oriented programming in Java 617
Formal methods
Bases for the development of LAST: a formal method for business software requirements specification 65
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Formal model
Reconstructing a formal security model 649
Formal specification
Soft-link hypertext for information retrieval 101
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875
Fortran
Development of CORBA-based engineering applications from legacy Fortran programs 175
Framework
ARK: an object(ive) view of extensible minimal languages for system configuration 259

Goal
Modeling software architectures with goals in virtual university environment 361
Grammar-driven testing
Automatic generation of MPEG test streams from high-level grammars 671

Hard real-time hierarchical object-oriented design
A framework for evaluating the effectiveness of real-time object-oriented models 395
Hazard analysis
Temporal fault trees 137
Heterogeneous databases access
XML schema mappings for heterogeneous database access 251
Hierarchical censored production rule
A general rule structure 451
High-level Petri nets
A methodology of testing high-level Petri nets 473
Hypertext
Soft-link hypertext for information retrieval 101

IBM system automation
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Industrial case study
Understanding the use of an electronic process guide 601
Information fusion
The architecture of an information tool for de-mining: mine identification core module (MICM) 25
Information systems
Bases for the development of LAST: a formal method for business software requirements specification 65
Information tool
The architecture of an information tool for de-mining: mine identification core module (MICM) 25
Information-leak analysis
An information-leak analysis system based on program slicing 903
Institutions
Institutions: integrating objects, XML and databases 207
Instrumentation
Anomaly detection in concurrent Java programs using dynamic data flow analysis 973
Integrity constraints
Institutions: integrating objects, XML and databases 207
Intelligent information retrieval systems
Soft-link hypertext for information retrieval 101
Internet Open Trading Protocol
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875
Interoperability
Translating object-oriented database transactions into relational transactions 41
IT usage
Senior executives' use of information technology 959

Java
Molecule-oriented programming in Java 617

L'E-Lyee
L'E-Lyee: coupling L'Ecritoire and LyeeALL 185
L'Ecritoire
L'E-Lyee: coupling L'Ecritoire and LyeeALL 185
Large object
Management of XML documents without schema in relational database systems 269
Legacy software
Development of CORBA-based engineering applications from legacy Fortran programs 175
Level of analysis: profession
Research in software engineering: an analysis of the literature 491
Linguistic structure
The documentary structure of source code 767
LyeeALL
L'E-Lyee: coupling L'Ecritoire and LyeeALL 185

Maintenance toolkits
A methodology for designing toolkits for specification level verification of interval-constrained information systems requirements 77
Management support
Case study: factors for early prediction of software development success 53
Markov model
A model for availability analysis of distributed software/hardware systems 343
Metaprogramming
Source transformation in software engineering using the TXL transformation system 827
Method
Software development processes – an assessment 1
Methodology
Software development processes – an assessment 1
Methodologies for developing Web applications 151
Methodologies and website development: a survey of practice 381

Metric extraction
Analyzing cloning evolution in the Linux kernel 755
MHP algorithm
Concurrent Ada dead statements detection 733
Microsoft's distributed component object model
An evaluation of the impact of component-based architectures on software reusability 351
Molecule
Molecule-oriented programming in Java 617
Molecule-oriented programming
Molecule-oriented programming in Java 617
Moving picture experts group
Automatic generation of MPEG test streams from high-level grammars 671
Multi-agent systems
Multi-item auctions for automatic negotiation 291
Multi-item auctions
Multi-item auctions for automatic negotiation 291
Multi-knowledge
Braille to print translations for Chinese 91
Multidatabase
Translating object-oriented database transactions into relational transactions 41
XML schema mappings for heterogeneous database access 251

***N*-Best search**
Braille to print translations for Chinese 91
***n*-Gram**
Braille to print translations for Chinese 91
Negotiations
Multi-item auctions for automatic negotiation 291

Object
Molecule-oriented programming in Java 617
Object database systems
Signature caching in parallel object database systems 331
Object-orientation
Conceptual Modeling in the eXtreme 659
Object-oriented
Institutions: integrating objects, XML and databases 207
Object-oriented database
Translating object-oriented database transactions into relational transactions 41
Object-oriented database system
Extending the ODMG standard with views 161
Object-oriented metrics
Measuring software evolution at a nuclear fusion experiment site: a test case for the applicability of OO and reuse metrics in software characterization 593
Object-oriented programming languages
Characterization and automatic identification of type infeasible call chains 721
Object-oriented regression testing
Reduction-based methods and metrics for selective regression testing 431
Object-oriented software development
Automated compression of state machines using UML statechart diagram notation 565
Object-relational database
Translating object-oriented database transactions into relational transactions 41
ODMG standard
Extending the ODMG standard with views 161
Ontology
A process matching approach for flexible workflow process reuse 445
OPEN
Software development processes – an assessment 1
Optimal test profile
Optimal software testing and adaptive software testing in the context of software cybernetics 841
ORB framework
An approach to high-level language bindings to XML 217

Parallel database systems
Signature caching in parallel object database systems 331
Parametric extensible markup language
V-DOM and P-XML–towards a valid programming of XML-based applications 229
Partial evaluation
Mutant query plans 197
Pattern formalization
Generating three-tier applications from relational databases: a formal and practical approach 923
Peer review meeting
Empirical study of exchange patterns during software peer review meetings 639
Peer-to-peer
An architecture in support of universal access to electronic commerce 279
Personalization
An architecture in support of universal access to electronic commerce 279
Pointer analysis
Flow insensitive points-to sets 743
Procedural language
An information-leak analysis system based on program slicing 903
Process
Software development processes – an assessment 1
Process matching
A process matching approach for flexible workflow process reuse 445
Process measurement
Empirical study of exchange patterns during software peer review meetings 639
Process reuse
A process matching approach for flexible workflow process reuse 445
Production functions
The question of scale economies in software–why cannot researchers agree? 13
Program debugging
An efficient dynamic program slicing technique 123
Program dependence graph
An efficient dynamic program slicing technique 123
An information-leak analysis system based on program slicing 903
Program reordering
A cache-aware program transformation technique suitable for embedded systems 783
Program slice
An information-leak analysis system based on program slicing 903
Program slicing
An efficient dynamic program slicing technique 123
Program transformation
Web application transformations based on rewrite rules 811

Programming
The documentary structure of source code 767
Project management
Impact of effort estimates on software project work 939
Prolog
Automatic generation of MPEG test streams from high-level grammars 671
Propositional dynamic logic
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Protection
Access privilege management in protection systems 541
Protocol analysis
Empirical study of exchange patterns during software peer review meetings 639
Prototype-based language
ARK: an object(ive) view of extensible minimal languages for system configuration 259

Quality of service
QoS-adaptive bandwidth scheduling in continuous media streaming 551
Query processing
Signature caching in parallel object database systems 331
Queuing network
Critical path identification in the context of a workflow 405

Rapid application development
Design breakdowns, scenarios and rapid application development 579
Rational unified process
Software development processes – an assessment 1
Real-time object-oriented models
A framework for evaluating the effectiveness of real-time object-oriented models 395
Reference discipline: not applicable
Research in software engineering: an analysis of the literature 491
Referential integrity metrics
Empirical validation of referential integrity metrics 949
Regression models
Comparison of artificial neural network and regression models for estimating software development effort 911
Regression testing metrics
Reduction-based methods and metrics for selective regression testing 431
Relational database
Translating object-oriented database transactions into relational transactions 41
Management of XML documents without schema in relational database systems 269
Relational model
Bases for the development of LAST: a formal method for business software requirements specification 65
Remote method invocation
An evaluation of the impact of component-based architectures on software reusability 351
Rendezvous
Concurrent Ada dead statements detection 733
Replication
Confidence intervals for capture–recapture estimations in software inspections 683
Requirements elicitation
Design breakdowns, scenarios and rapid application development 579
Requirements engineering
Conceptual Modeling in the eXtreme 659
Requirements management
Case study: factors for early prediction of software development success 53
Requirements specification
A methodology for designing toolkits for specification level verification of interval-constrained information systems requirements 77
Research approach: evaluative-other
Research in software engineering: an analysis of the literature 491
Research method: literature analysis
Research in software engineering: an analysis of the literature 491
Research synthesis
The question of scale economies in software–why cannot researchers agree? 13
Resource scheduling
QoS-adaptive bandwidth scheduling in continuous media streaming 551
Reuse
A methodology for designing toolkits for specification level verification of interval-constrained information systems requirements 77
Reuse metrics
Measuring software evolution at a nuclear fusion experiment site: a test case for the applicability of OO and reuse metrics in software characterization 593
Revocation
Access privilege management in protection systems 541
Rewrite rules
Web application transformations based on rewrite rules 811
Ripple down rule
A general rule structure 451
Risk management
Case study: factors for early prediction of software development success 53
Role-based
Reconstructing a formal security model 649
Rule-based system
A general rule structure 451

Safety analysis
Temporal fault trees 137
SAT checking
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Scale economies
The question of scale economies in software–why cannot researchers agree? 13
Scenario-based reading
Usage-based reading–an experiment to guide reviewers with use cases 925
Scenarios
Design breakdowns, scenarios and rapid application development 579
Schema integration
A method for the unification of XML schemata 241
XML schema mappings for heterogeneous database access 251
Selection efficiency
On the efficiency of domain-based COTS product selection method 703
Selection of COTS
On the efficiency of domain-based COTS product selection method 703
Selective regression testing
Reduction-based methods and metrics for selective regression testing 431

Senior executives
Senior executives' use of information technology 959
Signature files
Signature caching in parallel object database systems 331
Smoothing method
Braille to print translations for Chinese 91
***SNAQue* prototype**
An approach to high-level language bindings to XML 217
Software architecture
An evaluation of the impact of component-based architectures on software reusability 351
Modeling software architectures with goals in virtual university environment 361
Architectural styles for distributed processing systems and practical selection method 459
Software cybernetics
Optimal software testing and adaptive software testing in the context of software cybernetics 841
Software development effort
Comparison of artificial neural network and regression models for estimating software development effort 911
Software development success
Case study: factors for early prediction of software development success 53
Software engineering
Bases for the development of LAST: a formal method for business software requirements specification 65
Reduction-based methods and metrics for selective regression testing 431
Source transformation in software engineering using the TXL transformation system 827
Software estimation models
The question of scale economies in software–why cannot researchers agree? 13
Software evolution
Measuring software evolution at a nuclear fusion experiment site: a test case for the applicability of OO and reuse metrics in software characterization 593
Software/hardware reliability
A model for availability analysis of distributed software/hardware systems 343
Software inspection
Confidence intervals for capture–recapture estimations in software inspections 683
Usage-based reading–an experiment to guide reviewers with use cases 925
Software maintenance
Reduction-based methods and metrics for selective regression testing 431
Software operational profile
Optimal software testing and adaptive software testing in the context of software cybernetics 841
Software patterns
Conceptual Modeling in the eXtreme 659
Software process
Software processes for the development of electronic commerce systems 891
Software process improvement
Understanding the use of an electronic process guide 601
Software process model
Software processes for the development of electronic commerce systems 891
Software reusability
An evaluation of the impact of component-based architectures on software reusability 351
Software reuse
Development of CORBA-based engineering applications from legacy Fortran programs 175
Software testing
Non-specification-based approaches to logic testing for software 113
Optimal software testing and adaptive software testing in the context of software cybernetics 841
Anomaly detection in concurrent Java programs using dynamic data flow analysis 973
Software testing methods
A methodology of testing high-level Petri nets 473
Source code
The documentary structure of source code 767
Source code analysis
Analyzing cloning evolution in the Linux kernel 755
Source transformation
Source transformation in software engineering using the TXL transformation system 827
Spatial databases
The clustering property of corner transformation for spatial database applications 419
Specification and documentation
Documenting electronic commerce systems and software using the unified modeling language 303
Standards
Methodologies and website development: a survey of practice 381
Statechart diagram
Automated compression of state machines using UML statechart diagram notation 565
Static program analysis
Characterization and automatic identification of type infeasible call chains 721
Static slicing
An efficient dynamic program slicing technique 123
Storing XML data
Management of XML documents without schema in relational database systems 269
Synchronization anomaly
Anomaly detection in concurrent Java programs using dynamic data flow analysis 973
System administration
ARK: an object(ive) view of extensible minimal languages for system configuration 259
System architecture
The architecture of an information tool for de-mining: mine identification core module (MICM) 25
System availability
A model for availability analysis of distributed software/hardware systems 343
System structure
Application of traditional system design techniques to web site design 507
Systems design
Design breakdowns, scenarios and rapid application development 579

Technology acceptance model
Senior executives' use of information technology 959
Temporal logic
Temporal fault trees 137
Test coverage
Reduction-based methods and metrics for selective regression testing 431

Test criteria
A methodology of testing high-level Petri nets 473
The unified modeling language
Automated compression of state machines using UML statechart diagram notation 565
Topic: computing research
Research in software engineering: an analysis of the literature 491
Trade-off analysis
Modeling software architectures with goals in virtual university environment 361
Transaction translation
Translating object-oriented database transactions into relational transactions 41
Transformations
Institutions: integrating objects, XML and databases 207

UML
Bases for the development of LAST: a formal method for business software requirements specification 65
Reconstructing a formal security model 649
Unified modeling language
Documenting electronic commerce systems and software using the unified modeling language 303
A framework for evaluating the effectiveness of real-time object-oriented models 395
Unified modeling language real-time
A framework for evaluating the effectiveness of real-time object-oriented models 395
Universal accessibility
An architecture in support of universal access to electronic commerce 279
Use case
Modeling software architectures with goals in virtual university environment 361

Validating document object model
V-DOM and P-XML–towards a valid programming of XML-based applications 229
Validation
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
Variable precision logic
A general rule structure 451
Verification
A methodology for designing toolkits for specification level verification of interval-constrained information systems requirements 77
Detection of dynamic execution errors in IBM system automation's rule-based expert system 857
View management
Extending the ODMG standard with views 161
View model
Extending the ODMG standard with views 161
Virterbi algorithm
Braille to print translations for Chinese 91
Virtual university
Modeling software architectures with goals in virtual university environment 361
Visual impairment
Braille to print translations for Chinese 91

Web applications
Web application transformations based on rewrite rules 811
Web development
Methodologies for developing Web applications 151
Web development requirements
Methodologies for developing Web applications 151
Web Site Design
Application of traditional system design techniques to web site design 507
Web tuples
Anatomy of the coupling query in a web warehouse 513
Web warehouse
Anatomy of the coupling query in a web warehouse 513
Website development
Methodologies and website development: a survey of practice 381
Workflow
Critical path identification in the context of a workflow 405
A process matching approach for flexible workflow process reuse 445
Wrappers
Using meta-data to automatically wrap bioinformatics sources 237

XML
Mutant query plans 197
Institutions: integrating objects, XML and databases 207
ARK: an object(ive) view of extensible minimal languages for system configuration 259
XML fragments
An approach to high-level language bindings to XML 217
XML query
Management of XML documents without schema in relational database systems 269

Z
A CSP and Z combined modeling of document exchange processes in e-commerce protocols 875

ELSEVIER

Information and Software Technology 44 (2002) 953–955

INFORMATION AND SOFTWARE TECHNOLOGY

www.elsevier.com/locate/infsof

Article index—Volume 43

Number 15

Editorial
C. Wohlin and M. Höst 921

Usage-based reading—an experiment to guide reviewers with use cases
T. Thelin, P. Runeson and B. Regnel 925

Impact of effort estimates on software project work
M. Jørgensen and D. I. K. Sjøberg 939

Empirical validation of referential integrity metrics
C. Calero, M. Piattini and M. Genero 949

Senior executives' use of information technology
G. G. M. Pijpers, T. M. A. Bemelmans, F. J. Heemstra and K. A. G. M. van Montfort 959

Anomaly detection in concurrent Java programs using dynamic data flow analysis
K. Saleh, A. A. Boujarwah and J. Al-Dallal 973

Article index—Volume 44

Number 1

Software development processes — an assessment
M. E. C. Hull, P. S. Taylor, J. R. P. Hanna and R. J. Millar 1

The question of scale economies in software—why cannot researchers agree?
B. A. Kitchenham 13

The architecture of an information tool for de-mining: mine identification core module (MICM)
I. Vakalis and F. Andritsos 25

Translating object-oriented database transactions into relational transactions
J. Fong 41

Case study: factors for early prediction of software development success
J. Drew Procaccino, J. M. Verner, S. P. Overmyer and M. E. Darter 53

Number 2

Bases for the development of LAST: a formal method for business software requirements specification
J. M. Almendros-Jiménez and L. González-Jiménez 65

A methodology for designing toolkits for specification level verification of interval-constrained information systems requirements
S. M. Schorling and D. C. Rine 77

Braille to print translations for Chinese
M. Jiang, X. Zhu, G. Gielen, E. Drábek, Y. Xia, G. Tan and T. Bao 91

Soft-link hypertext for information retrieval
M. d'Inverno, P. Howells, M. Hu and M. Luck 101

Non-specification-based approaches to logic testing for software
N. Kobayashi, T. Tsuchiya and T. Kikuno 113

An efficient dynamic program slicing technique
G. B. Mund, R. Mall and S. Sarkar 123

Referees list 133

Number 3

Temporal fault trees
G. K. Palshikar 137

Methodologies for developing Web applications
C. Standing 151

Extending the ODMG standard with views
J. García-Molina, M.-J. Ortín-Ibáñez and G. García-Mateos 161

Development of CORBA-based engineering applications from legacy Fortran programs
J. Sang, G. Follen, C. Kim and I. Lopez 175

L'E-Lyee: coupling L'Ecritoire and LyeeALL
C. Rolland 185

Number 4

Objects, XML and databases
A. B. Chaudhri 195

Mutant query plans
V. Papadimos and D. Maier 197

Institutions: integrating objects, XML and databases
S. Alagić 207

An approach to high-level language bindings to XML
F. Simeoni, P. Manghi, D. Lievens, R. C. H. Connor and S. Neely 217

V-DOM and P-XML—towards a valid programming of XML-based applications
M. Kempa and V. Linnemann 229

Using meta-data to automatically wrap bioinformatics sources
D. Buttler and T. Critchlow 237

A method for the unification of XML schemata
R. d. S. Mello, S. Castano and C. A. Heuser 241

XML schema mappings for heterogeneous database access
S. R. Collins, S. Navathe and L. Mark 251

ARK: an object(ive) view of extensible minimal languages for system configuration
M. Holgate and W. Partain 259

Management of XML documents without schema in relational database systems
T. Kudrass 269

Number 5

Preface 277

An architecture in support of universal access to electronic commerce
T. Chiasson, K. Hawkey, M. McAllister and J. Slonim 279

Multi-item auctions for automatic negotiation
H. Benameur, B. Chaib-draa and P. Kropf 291

PII: S0950-5849(02)00183-0

Documenting electronic commerce systems and software using the unified modeling language
K. Saleh 303
Performance testing of a negotiation platform
C. Hélou, R. Dssouli and T.-G. Crainic 313

Number 6

Signature caching in parallel object database systems
K. Nørvåg 331
A model for availability analysis of distributed software/hardware systems
C. D. Lai, M. Xie, K. L. Poh, Y. S. Dai and P. Yang 343
An evaluation of the impact of component-based architectures on software reusability
K. McArthur, H. Saiedian and M. Zand 351
Modeling software architectures with goals in virtual university environment
J. Lee and K.-H. Hsu 361
Methodologies and website development: a survey of practice
M. J. Taylor, J. McWilliam, H. Forsyth and S. Wade 381
Erratum to "Bases for the development of LAST: a formal method for business software requirements specification"
J. M. Almendros-Jiménez and L. González-Jiménez 393

Number 7

A framework for evaluating the effectiveness of real-time object-oriented models
P. Kumarakulasingam and H. Saiedian 395
Critical path identification in the context of a workflow
D.-H. Chang, J. H. Son and M. H. Kim 405
The clustering property of corner transformation for spatial database applications
J.-W. Song, K.-Y. Whang, Y.-K. Lee, M.-J. Lee, W.-S. Han and B.-K. Park 419
Reduction-based methods and metrics for selective regression testing
N. Mansour and R. Bahsoon 431

Number 8

A process matching approach for flexible workflow process reuse
H. Zhuge 445
A general rule structure
N. M. Hewahi 451
Architectural styles for distributed processing systems and practical selection method
Y. Morisawa, K. Inoue and K. Torii 459
A methodology of testing high-level Petri nets
H. Zhu and X. He 473
Research in software engineering: an analysis of the literature
R. L. Glass, I. Vessey and V. Ramesh 491

Number 9

Application of traditional system design techniques to web site *design*
G. P. Marquis 507
Anatomy of the coupling query in a web warehouse
S. S. Bhowmick, W. K. Ng, S. Madria and E.-P. Lim 513
Access privilege management in protection systems
Lanfranco Lopriore 541
QoS-adaptive bandwidth scheduling in *continuous media streaming*
W. Lee, J. Srivastava and H. Cha 551

Number 10

Automated compression of state machines using UML statechart diagram notation
T. Systä, K. Koskimies and E. Mäkinen 565
Design breakdowns, scenarios and rapid application development
P. Beynon-Davies and S. Holmes 579
Measuring software evolution at a nuclear fusion experiment site: a test case for the applicability of OO and reuse metrics in software characterization
G. Manduchi and C. Taliercio 593
Understanding the use of an electronic process guide
L. Scott, L. Carvalho, R. Jeffery, J. D'Ambra and U. Becker-Kornstaedt 601

Number 11

Molecule-oriented programming in Java
J. Bergstra 617
Empirical study of exchange patterns during software peer review meetings
P. d'Astous and P. N. Robillard 639
Reconstructing a formal security model
G.-J. Ahn, S.-P. Hong, R. Mínguez and M. E. Shin 649
Conceptual Modeling in the eXtreme
E. Insfrán, V. Pelechano and O. Pastor 659

Number 12

Automatic generation of MPEG test streams from high-level grammars
L. M. G. Feijs, F. A. Meijs, J. R. Moonen and J. J. van Wamel 671
Confidence intervals for capture–recapture estimations in software inspections
T. Thelin, H. Petersson and P. Runeson 683
On the efficiency of domain-based COTS product selection method
K. R. P. H. Leung and H. K. N. Leung 703

Number 13

Editorial
M. Harman, M. Munro, L. Hu and X. Zhang 717
Characterization and automatic identification of type infeasible call chains
A. L. Souter and L. L. Pollock 721
Concurrent Ada dead statements detection
Z. Chen, B. Xu, H. Yang and J. Zhao 733
Flow insensitive points-to sets
P. Anderson, D. Binkley, G. Rosay and T. Teitelbaum 743
Analyzing cloning evolution in the Linux kernel
G. Antoniol, U. Villano, E. Merlo and M. Di Penta 755
The documentary structure of source code
M. L. Van De Vanter 767
A cache-aware program transformation technique suitable for embedded systems
S. Bartolini and C. A. Prete 783
Semantic and behavioral library transformations
S. Schupp, D. Gregor, D. Musser and S.-M. Liu 797

Web application transformations based on rewrite rules
F. Ricca and P. Tonella 811
Source transformation in software engineering using the TXL transformation system
J. R. Cordy, T. R. Dean, A. J. Malton and K. A. Schneider 827

Number 14
Editorial
T. Y. Chen, T. H. Tse, Y. T. Yu 839
Optimal software testing and adaptive software testing in the context of software cybernetics
K.-Y. Cai 841
Detection of dynamic execution errors in IBM system automation's rule-based expert system
C. Sinz, T. Lumpp, J. Schneider and W. Küchlin 857
A CSP and Z combined modeling of document exchange processes in e-commerce protocols
X. Wang, S.-C. Cheung and J. Wei 875
Software processes for the development of electronic commerce systems
V. Gruhn and L. Schöpe 891

Number 15
An information-leak analysis system based on program slicing
R. Yokomori, F. Ohata, Y. Takata, H. Seki and K. Inoue 903
Comparison of artificial neural network and regression models for estimating software development effort
A. Heiat 911
Generating three-tier applications from relational databases: a formal and practical approach
M. Polo, J. Á. Gómez, M. Piattini and F. Ruiz 923